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Monthly Statistical Report

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AUGUST 1992

SUMMARY

In contrast with the substantial losses of homes and community infrastructure from Hurricane Andrew, which swept through Florida and the Gulf Coast in late August, largely temporary disruptions in refinery activity and domestic production had only a modest impact on the month's supply figures.

The storm's effect on petroleum industry activity, though mostly short in duration, was widespread throughout the Gulf Coast—mainly via the impact of temporary slowing or shutting in of wells and refineries and other precautionary measures. Roughly 5 percent of offshore platforms were reported to have been damaged, however, and with the offshore Gulf's nearly 4,000 platforms accounting for roughly 15 percent of lower 48 crude oil production and about 30 percent of natural gas production, damage was estimated in the hundreds of millions of dollars.

Nevertheless, at month-end, all but about 250 thousand B/D of offshore crude oil production was reported to have been restored, and much of the 2.5-2.75 billion cubic feet/day shortfall in gas production was expected to be restored within several weeks. We estimate the hurricane's effect on crude oil production for August as a whole at 80-100 thousand B/D. The effect on refinery activity for the month was modest, since for the most part refineries that were slowing or halting operations the day the storm approached were already well on the way to restoring normal operations the following day. We estimate that overall runs for the month may have been off by a percent or less from what otherwise might have occurred.

Meanwhile, deliveries continued to falter in August, falling 1.8 percent versus a year ago—among the weakest monthly showings so far this year. Much of the decrease was concentrated in residual fuel oil, which continued the large declines of prior months and fell 30 percent from last August. The only major product to show an increase was kerosine jet fuel, which rose 3.4 percent in a continuation of its relative strength versus the other major products. Gasoline deliveries, which have been flat to down versus a year ago since May, fell 0.6 percent in August. Distillate deliveries were below what recent trends would have suggested, dropping 2.5 percent.

August's petroleum imports, however, though down from July's 8.5 million B/D, were still relatively strong. Even though they fell 7 percent from last August's unusually high level, at 8.1 million B/D, this August's imports were still running at roughly 400 thousand B/D above the 1992 average through July.

Total stocks rose 6 million barrels, or about average for August, keeping overall inventory levels towards the low end of recent experience for this time of year. Crude oil stocks, drawn down in the last week of the month by temporary, hurricane-related delays in imports and curtailed offshore production, dropped 4 million barrels for the month to 327 million barrels, towards the lower end of recent experience. Gasoline stocks fell 15 million barrels to a relatively low 203 million barrels (but which does not include substantial amounts of oxygenate blending components), while distillate stocks rose 9 million barrels to 124 million barrels, a level typical for the end of August.

PRODUCT SUPPLIED [1]

Gasoline

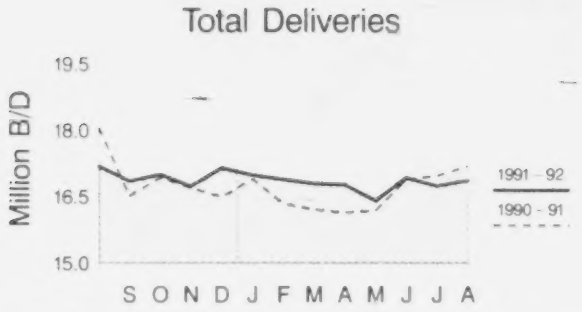
A SLOW SUMMER FOR DEMAND. Gasoline deliveries since May have more often than not shown year-to-year declines, and August's continued the pattern. The drop for August amounted to 0.6 percent.

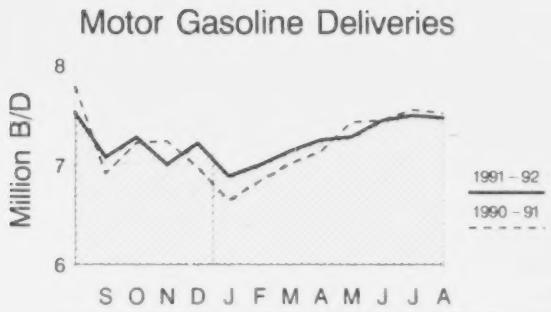
For the summer as a whole, deliveries turned out marginally weaker than many analysts had anticipated. For June through August, they averaged only 7.48 million B/D, down half a percent from a year ago and down 1.7 percent from two years ago. In fact, one has to go back five years, to 1987, to find a comparably-low level of deliveries.

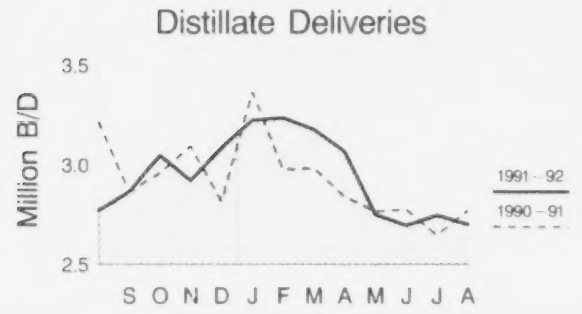
Of the usual economic factors used to explain changes in demand, price has played little role because retail price levels, in real terms, have been relatively stable over the past several summers. We estimate that for the June-August period this year, retail unleaded regular averaged about $1.175 per gallon—marginally higher than last summer's $1.142 per gallon in nominal terms, but essentially the same on an inflation-adjusted basis. Over the past five years, average summer gasoline prices, on an inflation-adjusted basis, have ranged only from around $1.15 to $1.23 in today's dollars.

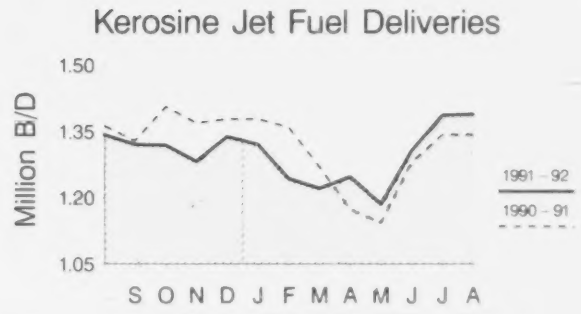
API ESTIMATES

	AUGUST		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.9	(1.8)	16.8	1.2
Crude production[2]	7.0	(4.3)	7.2	(3.4)
Total imports[2]	8.1	(7.0)	7.7	0.5
Stocks (million bbl)[2]	1,066	(1.2)	na	na









Rather, the sluggish economy, combined with continuing improvement in overall fleet efficiency, have been the main factors dampening gasoline demand. Year-to-year increases in travel in recent months have averaged only around 2 to 3 percent, and June's 1.8 percent increase (the latest data available) slipped below 2 percent for the first time this year. This contrasts with growth of 4 to 5 percent per year prior to the beginning of the most recent economic slowdown. Though travel has been growing in recent months, it has been rising barely enough to overcome the fuel efficiency effect, and consequently, deliveries have been flat to declining.

Distillates

DELIVERIES SLIP BELOW TREND IN AUGUST.

Distillate deliveries were unusually weak in August, dropping 2.5 percent versus the same month last year—in contrast to an average 2.6 percent increase for the first seven months of the year. With economic activity continuing to show some, though admittedly modest, year-to-year growth, transportation demand, particularly highway diesel, is believed to be continuing to rise. This is believed to have been coming more from highway transport than from rail traffic, which of late has been only flat versus a year ago.

Thus, despite August's decline in deliveries versus a year ago, demand is estimated to have been modestly higher. We estimate that distillate deliveries for the month were perhaps 100 thousand B/D below the recent trend; had they been more in line with the recent deliveries pattern, the year-to-year comparison would have amounted to a slight increase.

Kerosine Jet Fuel

GROWTH IN AIR TRAFFIC BOOSTS DEMAND.

For the second consecutive month, jet kerosine deliveries approached the 1.4 million B/D mark during August, as commercial air travel, already at its seasonal high, was further stimulated by the continued ticket discounts offered by most domestic airlines. Deliveries, at 1.389 million B/D, were up 3.4 percent, year to year, and approached their record high.

On only three occasions have jet kerosine deliveries surpassed the levels seen in August—twice during the severe 1989-1990 winter, when jet fuel was blended with diesel and heating fuels, and once during the fall of 1990, when Desert Shield's massive airlift to the Persian Gulf brought a spike in demand. Excepting these months, August's deliveries were the highest ever. And they would likely have been greater still were U.S. airlines not able to accommodate a significant portion of the increased number of travelers on existing flights (thus holding down fuel demand). Despite year-to-year passenger travel growth in the 10-12 percent range in July and August, growth in miles flown was kept in the 4-5 percent range, as load factors, nearing 75 percent, were among the highest ever.

Residual Fuel Oil

DELIVERIES FALL TO LESS THAN 900 THOUSAND B/D.

Moderate summer weather and the effects of Hurricane Andrew both worked against already-weak residual fuel deliveries during August. Down more than 20 percent year to year during the previous two months, deliveries fell an even more dramatic 30 percent during August, plunging below the 900 thousand B/D mark for the first time in five decades.

To date, the summer of 1992 has been the coolest in the U.S. since 1915, and is the third coolest on record. For those regions of the country where resid use by utilities is concentrated, weather has been particularly mild. In New England, the Mid-Atlantic states, and Florida, the number of cooling degree days through August were down 41 percent, 30 percent, and 13 percent, respectively, year to year—declines roughly equaled during August. The mild weather had an impact on space cooling needs and contributed to the estimated 5 percent year-to-year decline in power generation in the Northeast during the month. A disproportionate share of the decline in generation is believed to have been absorbed by peak-load resid generating units.

Hurricane Andrew exacerbated the effects of mild weather on resid deliveries. On the supply side, refinery production was reduced and imports from Latin American suppliers (particularly in the Bahamas) were likely temporarily curtailed. On the demand side, extended power outages in South Florida, where utilities are heavier than average users of resid, were a factor. And although the storm temporarily knocked off more than 2.5 billion cubic feet per day of natural gas production in the Gulf, any resulting short-term boost in heavy fuel oil demand was apparently more than overcome by negative demand influences.

The most recent figures published by the Department of Energy confirm resid's continued market share losses both to natural gas and nuclear generation. Through May, petroleum net-generation was off more than 15 percent nationwide (and the losses were accelerating) while nuclear generation was up about 2 percent and gas generation up nearly 5 percent.

Other Oils

A REBOUND FROM JULY'S LEVELS. Deliveries of "other oils", which had been off significantly last month versus a year ago, seemed to at least partially recover in August, with deliveries for the month rising 3.7 percent versus a year ago. For the year to date, deliveries are estimated to be up 3.6 percent, or more than 2 percentage points greater than for petroleum deliveries as a whole.

Deliveries by product, for which data are now available for the first half from the Department of Energy, show that most individual products in this category have experienced year-to-year increases for the first six months of 1992. Of the roughly 200 thousand B/D, 4.9 percent increase, deliveries of petroleum coke, with a shift away from exports to domestic markets, and liquefied petroleum gases accounted for more than half.

SUPPLY [1]

Production

ANDREW TEMPORARILY CURTAILS OUTPUT. Hurricane Andrew's effect on domestic crude oil production in August was mostly, though not entirely, short-term. With offshore Gulf Coast production from close to 4,000 platforms accounting for roughly 15 percent of lower 48 crude oil production and about 30 percent of natural gas production, precautionary moves to temporarily close down platforms had a widespread, but short-term, impact on domestic oil and gas output.

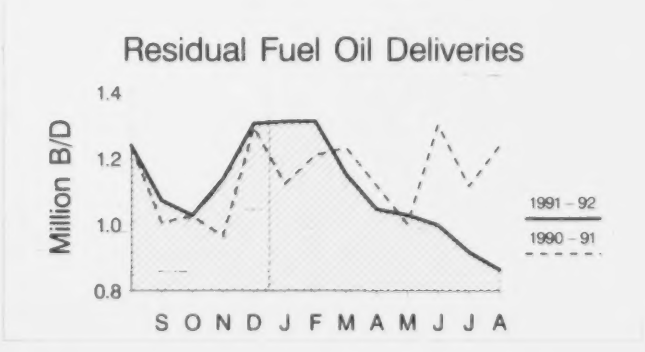
Although shut-ins began several days before the storm hit, once the storm had past, activity to restore production moved quickly. By early September, roughly a week after the tropical storm had past, all but about 250 thousand B/D of crude oil production, or about 4 percent of U.S. output, had been restored, according to government estimates. Natural gas production, still off by and estimated 2.5-2.75 billion cubic feet/day at month-end, or about 5 percent of U.S. production, was harder hit, but much of this was expected to be restored within several weeks. Though the number of rigs damaged amounted to about 5 percent of the total in the Gulf, given the substantial total investment in Gulf Coast offshore activity, overall damage has been estimated in the hundreds of millions of dollars.

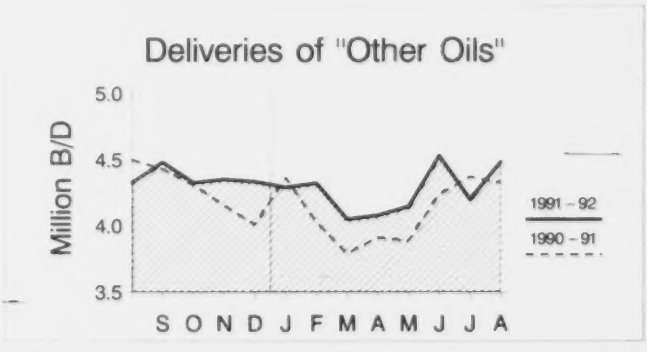
We estimate August's average crude oil production figure was reduced by 80-100 thousand B/D from what it otherwise would have been because of the largely temporary effects of the storm. Lower 48 production as a whole averaged an estimated 5.37 million B/D, down 3.8 percent or 215 thousand B/D from a year ago.

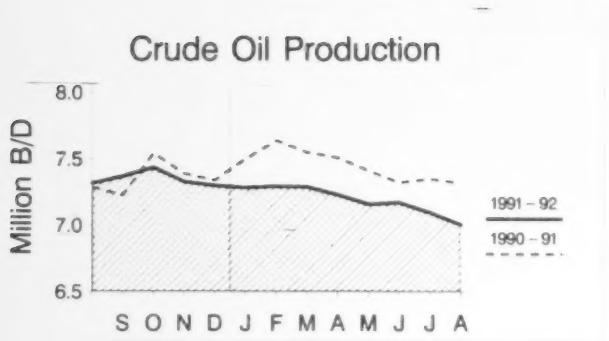
Meanwhile, Alaskan production, though far from developments in the Gulf, dropped to its lowest level in two years, off by 5.5 percent or close to 100 thousand B/D versus a year ago. Overall U.S. crude oil production fell 4.3 percent or 311 thousand B/D versus a year ago for August.

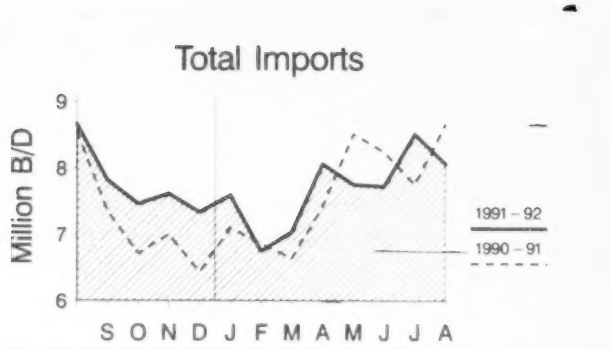
Imports

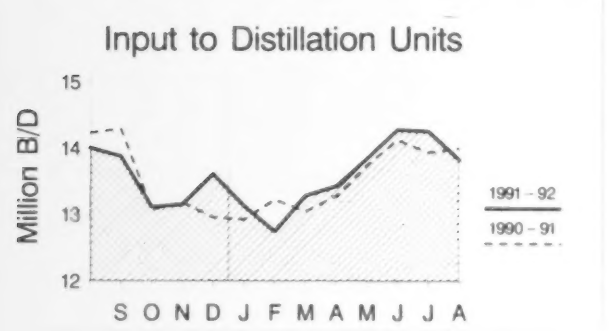
STILL REASONABLY STRONG IN AUGUST. Despite temporary delays due to Hurricane Andrew late in the month, August's total imports were still relatively strong. It is true that the month's imports, at 8.1 million B/D, were off 7 percent from last August's strong 8.7 million B/D—which at the time had been the highest in more than a year—and were down from July's 8.5 million B/D as well. But

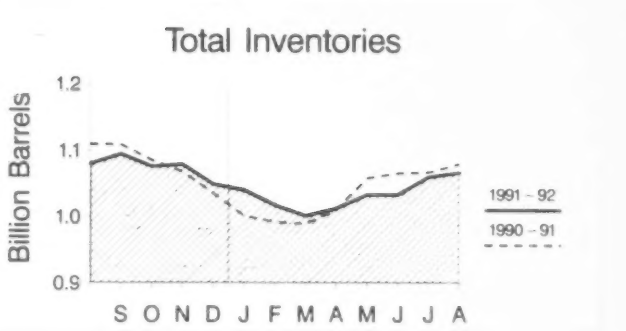












compared with the January-July average of about 7.6 million B/D, August's imports were still running roughly 400 thousand B/D higher.

Crude imports, compared with July, dropped about 500 thousand B/D to 6.3 million B/D, while product imports stayed roughly level at 1.8 million B/D. Distillate imports, at 244 thousand B/D, were at the highest level in more than a year and about 80 thousand B/D higher than a year ago. Kerosine jet fuel imports, which have been gradually strengthening along with domestic demand this year, rose to over 80 thousand B/D. This was up from levels of around 30 thousand B/D at the beginning of the year and slightly ahead of a year ago.

On the other hand, gasoline imports, which had ranged as high as 430 thousand B/D earlier this year, dropped to 223 thousand B/D. This was their lowest level so far in 1992, and was off by more than 160 thousand B/D from a year ago. Given dwindling demand for residual fuel oil, it is hardly surprising that imports of this product have dropped as well. August's imports of resid were off by over 190 thousand B/D from a year ago to 411 thousand B/D. For products as a whole, imports were 10.7 percent lower than a year ago in August.

Refinery Operations

HURRICANE'S IMPACT WAS MODERATE. As with domestic production, the effects of Hurricane Andrew on Gulf Coast refinery operations were broad in scope, but were largely short in duration—mostly precautionary slowdowns and shutdowns, though there were sporadic problems with electricity supply in restarting some refineries, among other factors. Most refineries that were slowing down or halting operations the day the storm was approaching were well on the way to resuming normal operations the following day.

The area around the Gulf Coast (PAD III) accounts for roughly 40 percent of U.S. refining capacity, and an estimated two-thirds of this capacity was affected in some way by Andrew. According to API weekly data, refinery runs in PAD III, for the week of the storm, were down about 7 percent or 400 thousand B/D from the first three weeks of August. Nevertheless, we estimate that overall U.S. refinery activity, as well as production of major products, were off by a percent or less for the month as a whole, compared with what otherwise might have occurred without the storm.

For August as a whole, country-wide input to distillation units was off 1.2 percent from a year ago, with product output continuing to reflect to some extent the relative demand strengths of the various products. Gasoline output continued to lag year-ago levels, as it has all summer, dropping 5.3 percent from last August. Distillate output, which had been running 2 to 3 percent ahead of a year ago in June and July, was off 0.7 percent for the month. Utilization of capacity in actual operation averaged around 93 percent for the month, down from 97 percent in June and 94-95 percent in July. In terms of reported capacity, utilization averaged 88.8 percent.

Inventories

CRUDE DECLINES, BUT TOTAL STOCKS RISE. Total inventories ended the month 6 million barrels higher than the previous month, about an average rise for August. Crude stocks, however, dropped 4 million barrels from the end of July, largely due to a drop of about 7 million barrels near the end of August related to Hurricane Andrew. A temporary curtailment in crude oil imports, including closing of the Louisiana Offshore Oil Port for four days, along with evacuation of offshore platforms, served to reduce the inflow into inventories by perhaps 10 million bar-

rels—but curtailments in refinery activity reduced inventory draws as well. At 327 million barrels, month-end crude stocks were near the bottom end of the 320-355 million barrel range of the past year or two.

The effects of tropical-storm-related developments on product stocks are estimated at only 1-2 million barrels each for gasoline and distillate, due to the relatively short down-time for most refineries on the Gulf Coast. For the month as a whole, gasoline stocks fell 15 million barrels, to 203 million barrels, the lowest level since last October. However, it should be noted that gasoline inventory figures do not include more than 20 million barrels of MTBE and other oxygenate blending components, though these will now constitute a significant and growing portion of domestic gasoline supply.

Meanwhile, distillate stocks rose 9 million barrels, or about twice the recent-year average, to 124 million barrels, close to average for the end of August.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 570 million barrels as of August 31, 1992).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	AUGUST			YEAR-TO-DATE		
	1992[1]	1991[2]	% Change	1992[3R]	1991[2]	% Change
Products Supplied:						
Total motor gasoline	7,480	7,528	(0.6)	7,253	7,206	0.7
Finished leaded motor gasoline/*	110	280	(60.7)	118	276	(57.2)
Finished unleaded motor gasoline/*	7,370	7,248	1.7	7,135	6,930	3.0
Naphtha-jet	127	200	(36.5)	144	177	(18.6)
Kerosine-jet	1,389	1,343	3.4	1,288	1,286	0.2
Distillate fuel oil	2,702	2,770	(2.5)	2,949	2,890	2.0
Residual fuel oil	864	1,240	(30.3)	1,079	1,168	(7.6)
All other oils[4]	4,483	4,325	3.7	4,263	4,116	3.6
Reclassified[5]	-178	-223	(20.2)	-180	-238	(24.4)
Total domestic products supplied	16,867	17,183	(1.8)	16,796	16,605	1.2
Exports	936	837	11.8	942	1,020	(7.6)
Total products supplied	17,803	18,020	(1.2)	17,738	17,625	0.6
Supply:						
Domestic production:						
Crude oil[6]	7,005	7,316	(4.3)	7,190	7,446	(3.4)
Natural gas liquids	1,690	1,627	3.9	1,693	1,652	2.5
Other supply[7]	1,245	827	50.5	1,232	1,049	17.4
Total domestic supply	9,940	9,770	1.7	10,115	10,147	(0.3)
Imports:						
Crude oil, total[8]	6,257	6,645	(5.8)	5,927	5,850	1.3
Canadian	740	694	6.6	785	735	6.8
Other	5,517	5,951	(7.3)	5,142	5,115	0.5
Products, total	1,809	2,025	(10.7)	1,768	1,810	(2.3)
Residual fuel oil	411	599	(31.4)	364	439	(17.1)
Other	1,398	1,426	(2.0)	1,404	1,371	2.4
Total imports	8,066	8,670	(7.0)	7,695	7,660	0.5
Total supply	18,006	18,440	(2.4)	17,810	17,807	0.0
Stock change, all oils	203	420	******	72	182	******
Refinery Operations						
Input to crude oil distillation units	13,831	14,005	(1.2)	13,608	13,541	0.5
Operable capacity	15,567	15,724	(1.0)	15,616	15,699	(0.5)
Refinery utilization (%)[9]	88.8	89.1	(0.3)	87.1	86.3	0.9
Crude oil runs	13,637	13,800	(1.2)	13,397	13,330	0.5

Stocks (millions bbls.)	1992		1991[2]	% Change from	
	Aug. 31[10]	Jul. 31[10]	Aug. 31	Previous month	Year Ago
Crude oil[8]	326.6	330.1	345.3	(1.1)	(5.4)
Unfinished oils	96.5	100.5	107.8	(4.0)	(10.5)
Total motor gasoline/**	203.4	218.4	208.7	(6.9)	(2.5)
Finished leaded motor gasoline/*	3.9	4.1	6.5	(4.9)	(40.0)
Finished unleaded motor gasoline/*	163.5	178.1	165.2	(8.2)	(1.0)
Naphtha-jet	5.0	5.1	5.3	(2.0)	(5.7)
Kerosine-jet	41.9	40.6	42.3	3.2	(0.9)
Distillate fuel oil	124.4	115.1	131.4	8.1	(5.3)
Residual fuel oil	41.0	38.3	45.8	7.0	(10.5)
All other oils	227.4	211.8R	192.9	7.4	17.9
Total all oils	1,066.2	1,059.9R	1,079.5	0.6	(1.2)

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-June, DOE, July-August, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components